

Attorney's Docket No.: 07977/076003

In the claims:

Please amend the claims as follows:

A1

1. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film over a substrate;

cleaning a surface of a semiconductor film; and

applying a laser beam to the cleaned surface of said semiconductor film to form a crystalline semiconductor film in a nitrogen atmosphere.

2. (Original) A method according to claim 1, wherein said cleaning is performed by using HF aqueous solution or an aqueous solution containing HF and H₂O₂.

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3. (Original) A method according to claim 1, wherein said laser beam has an energy density of 100 to 500 mJ/cm².

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4. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film over a substrate;

cleaning a surface of said semiconductor film;

preheating said semiconductor film to form an oxide film;

and

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applying a laser beam to said semiconductor film through
said oxide film to form a crystalline semiconductor film in a
nitrogen atmosphere.

5. (Original) A method according to claim 4, wherein said
cleaning is performed by using HF aqueous solution or an aqueous
solution containing HF and H₂O₂.

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6. (Original) A method according to claim 4, wherein said
laser beam has an energy density of 100 to 500 mJ/cm².

7. (Currently Amended) A method for manufacturing a
semiconductor device comprising the steps of:

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forming a semiconductor film over a substrate;
cleaning a surface of said semiconductor film;
preheating said semiconductor film in an atmosphere
containing oxygen and nitrogen to form an oxide film; and
applying a laser beam to said semiconductor film through
said oxide film to form a crystalline semiconductor film in a
nitrogen atmosphere.

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8. (Original) A method according to claim 7, wherein said
cleaning is performed by using HF aqueous solution or an aqueous
solution containing HF and H₂O₂.

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A6 9. (Original) A method according to claim 7, wherein said laser beam has an energy density of 100 to 500 mJ/cm².

A7 10. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:
forming a semiconductor film over a substrate;
cleaning a surface of said semiconductor film;
preheating said semiconductor film to form an oxide film on a surface of said semiconductor film; and
applying a laser beam to said semiconductor film through said oxide film to form a crystalline semiconductor film in a nitrogen atmosphere.

A8 11. (Original) A method according to claim 10, wherein said cleaning is performed by using HF aqueous solution or an aqueous solution containing HF and H₂O₂.

12. (Original) A method according to claim 10, wherein said laser beam has an energy density of 100 to 500 mJ/cm².

A9 13. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:
forming a crystalline semiconductor film over a substrate;

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cleaning a surface of said crystalline semiconductor film;
and

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applying a laser beam to the cleaned surface of said
crystalline semiconductor film to improve crystallinity of said
crystalline semiconductor film in a nitrogen atmosphere.

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14. (Original) A method according to claim 13, wherein said
cleaning is performed by using HF aqueous solution or an aqueous
solution containing HF and H₂O₂.

15. (Original) A method according to claim 13, wherein said
laser beam has an energy density of 100 to 500 mJ/cm².

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16. (Currently Amended) A method for manufacturing a
semiconductor device comprising the steps of:
forming a crystalline semiconductor film over a substrate;
cleaning a surface of said crystalline semiconductor film;
preheating said crystalline semiconductor film to form an
oxide film; and
applying a laser beam to said crystalline semiconductor
film through said oxide film to improve crystallinity of said
crystalline semiconductor film in a nitrogen atmosphere.

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17. (Original) A method according to claim 16, wherein said cleaning is performed by using HF aqueous solution or an aqueous solution containing HF and H₂O₂.

18. (Original) A method according to claim 16, wherein said laser beam has an energy density of 100 to 500 mJ/cm².

19. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

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forming a semiconductor film over a substrate;
cleaning a surface of said semiconductor film;
forming an oxide film on a surface of said semiconductor film; and

applying a laser beam to said semiconductor film through
said oxide film to form a crystalline semiconductor film in the air.

20. (Original) A method according to claim 19, wherein said laser beam is a linear laser beam.

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21. (Original) A method according to claim 19, wherein said laser beam has an energy density of 100 to 500 mJ/cm².

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22. (Original) A method according to claim 19, wherein said oxide film has a thickness of 20-40Å.

23. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film over a substrate;

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cleaning a surface of said semiconductor film by using HF aqueous solution or an aqueous solution containing HF and H₂O₂;

forming an oxide film on a surface of said semiconductor film; and

applying a laser beam to said semiconductor film through said oxide film to form a crystalline semiconductor film in the air.

24. (Original) A method according to claim 23, wherein said laser beam is a linear laser beam.

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25. (Original) A method according to claim 23, wherein said laser beam has an energy density of 100 to 500 mJ/cm².

26. (Original) A method according to claim 23, wherein said oxide film has a thickness of 20-40Å.
